

## AMENDMENTS TO THE CLAIMS

1. (canceled)

2. (currently amended) A communications system for transmitting data, the system comprising:

~~means for encoding a digital signal into a 180-degree phase shifted encoded signal;~~

means for transmitting ~~said encoded~~ a digital signal as a spread spectrum frequency hopped signal, wherein the spread spectrum frequency hopped signal includes a header that identifies a frequency channel and a network identification; and

means for receiving said spread spectrum frequency-hopped signal, wherein said means for receiving includes means for using the network identification to detect broadcast signals, and wherein said means for receiving further includes means for using the header to track the hopped signal upon detection of noise.

3. (new) A method for digital data transmission, the method comprising:

receiving a digital signal that is modulated for radio transmission, wherein the modulated signal includes a header having a channel identifier;

demodulating the signal, wherein the demodulation comprises:

filtering the signal; and

determining that the signal is data by evaluating its pulse width.

4. (new) A method as recited in claim 3, wherein the step for demodulating the signal further comprises a step for determining that the signal is data by evaluating its pattern.